

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003470**Date Inspected:** 02-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chih-Ming/Zhao Chen Sun/Huang Yuesen/Pang/Chen X			Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A

Bridge No: 34-0006**Component:** OBG side, bottom, deck panels, floor beams, etc.**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ABF green tag the following side and bottom panels: SP-024A, BP-018A, SP-031A, SP-023A, SP-062B, BP-017A, BP-016A, BP-006A, SP-028A, SP-033B, BP-015A, SP-020A, SP-015A, SP-019A and SP-038B.

QA observed ZPMC qualified welding personnel perform FCAW welding on joint# SSD13A-PP-036-131 and 135 following the guide lines of WPS-B-T-2233-B-U2-F. QC monitored the welding process continuously throughout the evening. The welder ID's and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 26.2 Amps: 207 Travel speed: 121mm/min

Welder ID weld 131: 066673

Welder ID weld 135: 201215

QA observed ZPMC qualified welding personnel SMAW tack welding floorbeam @ PP-036 OBG section 5CE to bottom panel.

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Other general observations include ZPMC personnel fitting and welding OBG east fixture, OBG temporary support columns, grinding and weld bevel prep on various OBG components.

OBG bay 1

QA observed ZPMC personnel fitting u-rib stiffeners to one deck panel. QA also noted that ZPMC completed PJP u-rib to deck plate GMAW and SAW welds on gantry 1 for DP-572-001, DP-587-001 and DP-587-002.

QA observed ZPMC personnel FCAW welding u-rib diaphragms inside of u-ribs.

OBG bay 2

QA noted that there was no Caltrans work being performed in this bay on this day.

OBG bay 3

QA observed ZPMC personnel preparing parts for fit up and welding; (cutting parts, drilling and weld bevel prep).

QA observed ZPMC personnel fitting stiffeners to side and bottom panels.

QA observed ZPMC qualified welding personnel FCAW stiffeners to two side panels.

QA observed ZPMC qualified welding personnel gantry GMAW stiffeners to side and bottom panels.

OBG bay 4

QA observed ZPMC qualified welding personnel perform FCAW 3G welding on three tower diaphragm flanges.

QA observed ZPMC qualified welding personnel FCAW welding two diaphragm flanges in two tower diaphragms.

QA observed ZPMC personnel fitting one diaphragm flange.

QA observed ZPMC personnel flame straighten OBG side panel.

QA observed ZPMC personnel fitting diaphragm flange into tower diaphragm.

QA observed ZPMC personnel SAW temporary columns and preparing parts for fit up and welding; (cutting parts and weld bevel prep).

OBG bay 7

QA observed ZPMC personnel fit and SMAW tack welding stiffeners to four floor beam web plates.

QA observed ZPMC qualified welding personnel perform FCAW welding on component identified as LD-020-004.

QA observed ZPMC qualified welding personnel perform SAW on one floor beam splice.

QA observed ZPMC QC UT technicians UT CJP's on FB-003-044 and FB-003-055. According to ZPMC QC personnel all welds appeared to comply with the contract documents.

Other general observations include ZPMC personnel grinding and weld bevel prep on various OBG components.

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OBG bay 8

QA observed ZPMC qualified welding personnel perform SAW welding on joint# FB-001-006 following the guide lines of WPS-B-T-2221-B-L2c-S-1. QC monitored the welding process continuously throughout the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 30 Amps: 575 Travel speed: 534mm/min
Welder ID: 045273

Other general observations include ZPMC personnel fitting stiffeners to tower diaphragm, grinding and weld bevel prep on various OBG and tower components.

Tower bay 1

QA observed ZPMC qualified welding personnel gantry GMAW joint# SSD1-SA159-G/J following the guide lines of WPS-B-T-2332-Tc-P5-F. QC monitored the welding process continuously throughout the evening. The welder ID's and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 31.5 Amps: 316 Travel speed: 310mm/min
Welder ID: 066236, 067184 and 040261

QA observed ZPMC qualified welding personnel SAW joint# NSD1-SA006-A/K-15B following the guide lines of WPS-B-T-2221-B-U3c-S-2. QC monitored the welding process continuously throughout the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 32.4 Amps: 671 Travel speed: 578mm/min
Welder ID: 052917

QA observed ZPMC personnel fitting stiffeners to skin plate. Skin plate ID not found marked on plate.

Tower bay 2

QA observed ZPMC personnel fitting stiffeners to two skin plates. Skin plate ID's not found marked on plates.

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Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
